

### **REMARKS**

The applicants have carefully considered the Office action dated May 27, 2009. By way of this response, claims 24, 27, 29, 34, and 36 have been amended. In view of the foregoing amendments and the following remarks, the applicants respectfully request reconsideration of this application.

As an initial matter, the applicants maintain their traversal of the restriction requirement set forth in the Office action dated February 5, 2008. Further, the applicants note that claims 27, 29, 34, and 36 are withdrawn claims that are amended by way of this response in accordance with MPEP 714, which states “[t]he status identifier (withdrawn - currently amended) is also acceptable for a withdrawn claim that is being currently amended.”

### **Rejections Under 35 U.S.C. §103**

Independent claim 24 was rejected under 35 U.S.C. §103(a) as unpatentable over Johnson et al. (United States Patent Number 5,909,463) in view of Gitlin et al. (United States Patent Number 6,064,662) and further in view of Maag et al. (United States Patent Number 5,892,833). As amended, independent claim 24 recites a plurality of digital filters configured to implement a frequency translation scheme, wherein the digital filters are to operate according to the frequency translation scheme to move a signal to an available frequency band.

Johnson et al. do not teach or suggest moving a signal to an available frequency band using a frequency translation scheme. To cure this example deficiency, the Office action cites Gitlin et al. However, Gitlin et al. also do not expressly describe implementing a frequency translation scheme, wherein digital filters are to operate according to the frequency translation scheme to move a signal to an available frequency band. Rather, Gitlin et al.

describe a system configured to optimize spectral efficiency by allocating different “slices” of a transmission medium to different user based on data rates associated with the user. While Gitlin et al. describe allocation of “slices” for different signals, Gitlin et al. do not describe a translation scheme to be used by digital filters to move signals to an available frequency band, as recited in claim 1. Accordingly, neither Johnson et al. nor Gitlin et al., teaches or suggests the recitations of claim 1.

Furthermore, despite the contentions of the Office action, no combination of Johnson et al. and Gitlin et al. teaches or suggests the recitations of claim 1. In attempting to cure the example deficiency of Johnson et al. described above, the Office action argues that Gitlin et al. describe “a signal in an available frequency band for transmitting [the] signal.” (*The Office action dated May 27, 2009*, page 2). The Office action then asserts that “it would have been obvious...to implement the method of signals into the available frequency band in order to transmit in channels.” (*Id.* at 2-3). In doing so, the Office action attempts to combine broadly described elements of Johnson et al. and Gitlin et al. and then dismisses the recitations of claim 1 and the functional relationships therebetween. That is, the Office action ignores the recitations of claim 1 in their entirety. Instead, the Office action breaks the recitations into unrelated segments and then cites general concepts of the prior art in support of the obviousness rejection.

In particular, the Office action states that (1) Johnson et al. includes software filters and (2) Gitlin et al. includes frequency band allocation. The Office action then summarily concludes that the obvious combination of those two elements describes a plurality of digital filters configured to implement a frequency translation scheme to move a signal to an available frequency band, as recited in claim 1. In making this conclusion, the Office action

fails to provide “some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *KSR Int’l v. Teleflex Inc.*, 127 S. Ct. 1727, 1741 (2007) (quoting *In re Kahn*, 441 F.3d 977, 988 (Fed. Cir. 2006)). The lack of articulated reasoning is expected here because neither Johnson et al., Gitlin et al., nor any combination thereof teaches or suggests the recitations of claim 1. In particular, none of the cited art teaches or suggests configuring a plurality of digital filters to operate according to a frequency translation scheme to move a signal to an available frequency band.

Therefore, the §103 rejections of independent claim 1 and all claims dependent thereon must be withdrawn. Accordingly, the applicants respectfully submit that independent claim 1 and all claims dependent thereon are in condition for allowance and request favorable reconsideration of the same.

### **Conclusion**

In view of the foregoing, the applicants respectfully submit that this application is in condition for allowance and request reconsideration of this application and an early favorable action on the merits. If there are any remaining matters that the Examiner would like to discuss, the Examiner is invited to contact the undersigned representative at the telephone number set forth below.

In general, the Office Action makes various statements regarding the claims and the cited references that are now moot in light of the above. Thus, the applicants will not address such statements at the present time. However, the applicants expressly reserve the right to challenge such statements in the future should the need arise (*e.g.*, if such statements should become relevant by appearing in a rejection of any current or future claim).

The Commissioner is hereby authorized to refund any overpayment and charge any deficiency in the amount paid in connection with this paper or any additional fees which may be required during the pendency of this application under 37 CFR 1.16 or 1.17 to Deposit Account No. 50-2455.

In addition, if a petition for an extension of time under 37 CFR 1.136(a) is necessary to maintain the pendency of this case and is not otherwise requested in this case, the Applicants request that the Commissioner consider this paper to be a petition for an appropriate extension of time and hereby authorize the Commissioner to charge the fee as set forth in 37 CFR 1.17(a) corresponding to the needed extension of time to the above deposit account.

Respectfully submitted,  
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